

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE INSTALLATION OF LED COUNTDOWN PEDESTRIAN SIGNAL HEADS, APS PUSHBUTTONS AND SIGNS AT THE INTERSECTION OF MD 223 (WOODYARD ROAD) AND MIKE SHAPIRO DRIVE/SIMPSON DRIVE IN PRINCE GEORGES COUNTY. MD 223 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THIS INTERSECTION CURRENTLY OPERATES IN A NEMA FIVE-PHASE FULL-TRAFFIC-ACTUATED MODE WITH AN EXCLUSIVE LEFT TURN PHASE FOR EAST-BOUND MD 223 AND AN ALTERNATE PEDESTRIAN PHASE FOR THE EAST LEG OF THE INTERSECTION. A CONCURRENT PEDESTRIAN PHASE IS ADDED TO THE NORTH LEG OF THE INTERSECTION.

CONTROLLER REQUIREMENTS

THE EXISTING FULL-TRAFFIC-ACTUATED EIGHT PHASE TRAFFIC SIGNAL CONTROLLER HOUSED IN A BASE MOUNTED CABINET WILL BE USED. A 2-WIRE APS CONTROL UNIT WILL BE FURNISHED BY THE CONTRACTOR AND INSTALLED BY SHA.

SPECIAL NOTE

APS WILL FUNCTION AS FOLLOWS:

FOR MD 223 (WOODYARD ROAD):

A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT MESSAGE WILL BE "WAIT TO CROSS WOODYARD AT MIKE SHAPIRO."

B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

FOR MIKE SHAPIRO DRIVE:

A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT MESSAGE WILL BE "WAIT TO CROSS MIKE SHAPIRO AT WOODYARD."

B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

CONTACT PERSONS FOR DISTRICT # 3 ARE AS FOLLOWS:

MR. BRIAN YOUNG
ASSISTANT DISTRICT ENGINEER-TRAFFIC
PHONE: (301) 513-7358

MR. AUGIE REBISH
UTILITY ENGINEER
PHONE: (301) 513-7350

MR. WAYNE A. MOWDY
ASSISTANT DISTRICT ENGINEER-MAINTENANCE
PHONE: (301) 513-7304

CONTACT PERSONS FOR OOTS ARE AS FOLLOWS:

MR. RICHARD L. DAFF, SR.
CHIEF, TRAFFIC OPERATIONS
DIVISION
PHONE: (410) 787-7630

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF
TRAFFIC OPERATIONS
410-787-7630

MR. ED RODENHIZER
CHIEF, SIGNAL OPERATIONS
410-787-7650

MR. EUGENE BAILEY
CHIEF, SIGN OPERATIONS
410-787-7676

THE POWER COMPANY IS:

PEPCO
ROCKVILLE SERVICE CENTER
201 WEST GUDE DRIVE
ROCKVILLE, MD 20850
301-670-8700

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA.

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
9570	SHEET ALUMINUM SIGNS - GROUND MOUNTED:	SF	50
4	- S1-1 (36"X36") FYG		
4	- M6-2R (21"X15") FYG		
1	- R4-7 (24"X30")		

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
1001	REMOVAL OF EXISTING PAVEMENT LINE MARKINGS, ANY WIDTH	LF	770
1002	MAINTENANCE OF TRAFFIC	LS	1
2002	TEST PIT EXCAVATION	CY	3
5004	5 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS	LF	10
5005	12 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS	LF	375
8001	AUDIBLE / TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS	EA	4
8002	BREAKAWAY PEDESTAL POLE - ANY SIZE	EA	4
8003	FURNISH AND INSTALL 2-WIRE CONTROL UNIT	EA	1
8004	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEADS	EA	4
8005	PEDESTRIAN EDUCATION SIGN	EA	4
8007	REMOVE AND DISPOSE PER ASSIGNMENT	EA	1
8010	WOOD SIGN SUPPORTS 4 INCH X 4 INCH	LF	150
8012	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	LF	100
8013	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	LF	90
8015	INSTALL GROUND MOUNTED SIGN	SF	50
8017	1 INCH DIAMETER RIGID STEEL CONDUIT, SCHEDULE 40	LF	40
8020	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)	LF	905
8021	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)	LF	925
8022	LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 AWG)	LF	1730
8023	SAW CUT FOR SIGNAL (LOOP DETECTOR)	LF	450

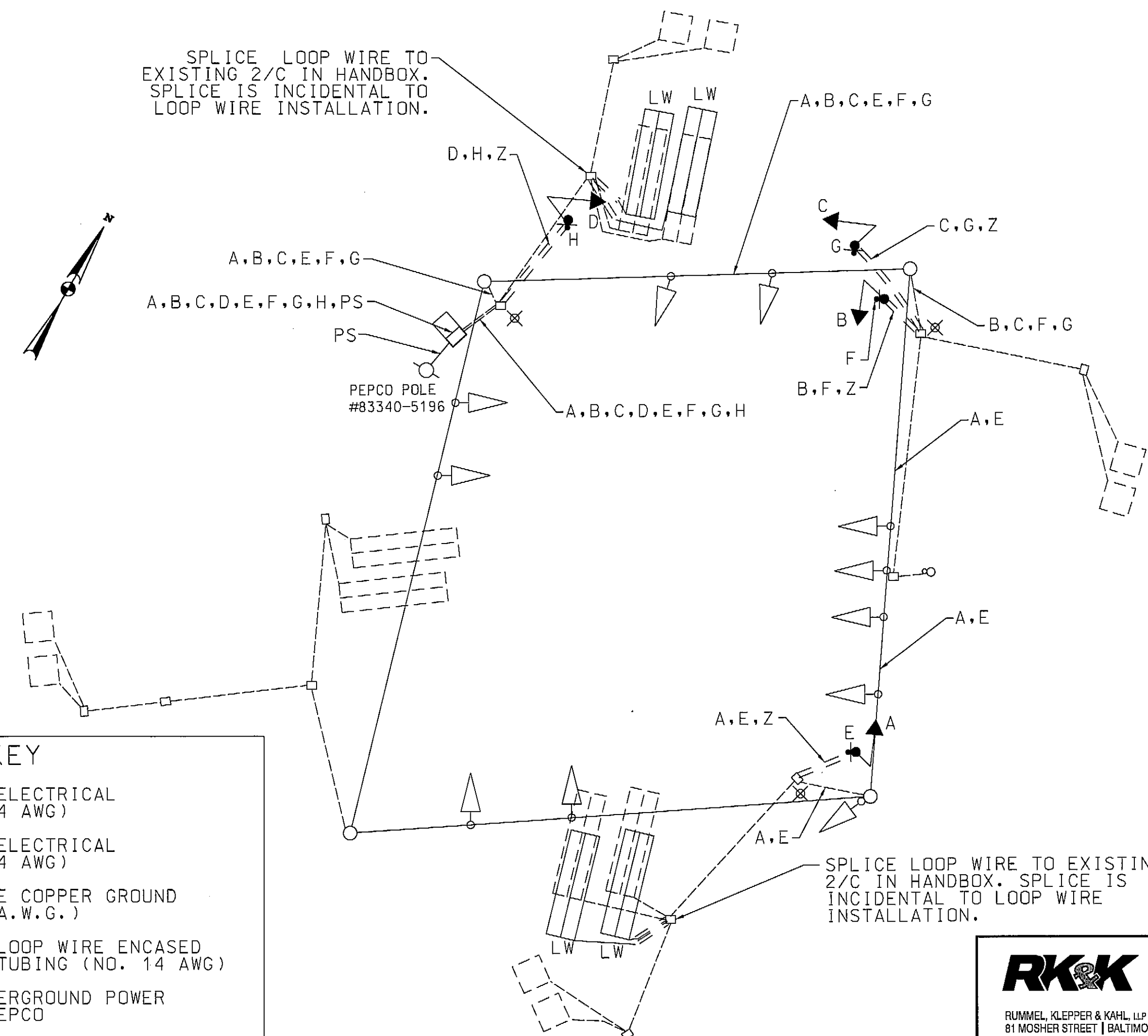
* REMOVE AND DISPOSE ITEM IS FOR ALL SIGNALS WHICH ARE PART OF THIS TASK. MOT QUANTITY IS COVERED AS PART OF THE SIDEWALK PLANS.

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND RETURNED TO SHA.

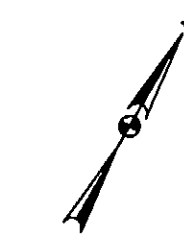
ALL MATERIALS AND EQUIPMENT REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

WIRING DIAGRAM



WIRING KEY

A,B,C,D	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
E,F,G,H	2-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
Z	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
LW	1-CONDUCTOR LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 AWG)
PS	EXISTING UNDERGROUND POWER SERVICE BY PEPCO
⊗	EXISTING GROUND ROD



1	2	3	4	5	6	7	8	9	10	11	12/13	14/15

PHASE 1 & 6			G	G	R	R	R	R	R	R	R	DW	DW	
1 & 6 CHANGE			G	G	R	R	R	R	R	R	R	DW	DW	
PHASE 2 & 6			G	G	G	G	R	R	R	R	R	WK	DW	
PED CLEARANCE/COUNTDOWN			G	G	G	G	R	R	R	R	R	FL/DW	DW	
2 & 6 CHANGE			Y	Y	Y	Y	R	R	R	R	R	DW	DW	
PHASE 4 & 8			R	R	R	R	G	G	G	G	G	DW	DW	
4 & 8 CHANGE			R	R	R	R	Y	Y	Y	Y	Y	DW	DW	
PHASE 4 & 8 ALT			R	R	R	R	G	G	G	G	G	DW	WK	
PED CLEARANCE/COUNTDOWN			R	R	R	R	G	G	G	G	G	DW	FL/DW	
4 & 8 ALT CHANGE			R	R	R	R	Y	Y	Y	Y	Y	DW	DW	
FLASHING OPERATION			FL/	FL/	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	

GENERAL NOTES

1. THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE LOCATIONS PRIOR TO INSTALLATION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLE TO THE APPROPRIATE TERMINALS AND PROPERLY LABELING EACH CABLE.
3. ALL UNUSED CABLE SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.
4. UNDERGROUND UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING "MISS UTILITY" PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.
5. ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT THE FINAL SIDEWALK OR CURB GRADE FOR CLOSED SECTIONS. HIGHEST ROADWAY PROFILE GRADE FOR OPEN SECTIONS, TO MEET CLEARANCES AS SPECIFIED IN MD 816.03, MD 818.01, MD 818.02, MD 818.04. THE CONTRACTOR SHALL VERIFY ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL SIGNAL EQUIPMENT.
6. ACCESSIBLE PEDESTRIAN CONTROL EQUIPMENT SHALL BE DELIVERED TO THE SHA SIGNAL SHOP FOR TESTING AND PROGRAMMING PRIOR TO INSTALLATION. CONTACT MR. EDWARD RODENHIZER AT 410-787-7652 TO COORDINATE.
7. LOCATION OF ACCESSIBLE PEDESTRIAN PUSHBUTTONS MUST MEET THE LOCATION REQUIREMENTS OF THE MUTCD, SECTION 4E-09 AND FIGURE 4E-2 AND THE NCHRP PUBLICATION, "ACCESSIBLE PEDESTRIAN SIGNAL: GUIDE TO BEST PRACTICE." IF NOT MET, THE CONTRACTOR IS TO STOP WORK ON PUSHBUTTON LOCATIONS UNTIL THE CONFLICT HAS BEEN RESOLVED. IF NEEDED, A DESIGN WAIVER SHALL BE OBTAINED, APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.
8. INSTALL PVC SLEEVE FOR SIGNS IN SIDEWALK AREAS.
9. PUSHBUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR REACHING LESS THAN 18" FROM A 60" X 60" LEVEL LANDING AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2%.
10. THE 10' SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON, NOT CENTER TO CENTER OF POLE.
11. PUSHBUTTON ARROWS AND SIGNS ARE TO BE ORIENTED PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.

SHA

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 223 (WOODYARD RD) AT
MIKE SHAPIRO DRIVE
BALLARD, MARYLAND

REVISIONS

GENERAL INFORMATION SHEET

SCALE NONE DATE JUNE 2009 CONTRACT NO. AX7035168

DESIGNED BY SK COUNTY PRINCE GEORGE'S

DRAWN BY SK LOGMILE 16022307.65

CHECKED BY DAE TMS NO. 1509

FAP NO. TOD NO.

TS NO. 1664B-GI DRAWING SG - 02 OF 02 SHEET NO. 2 OF 2

RK&K

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FILE: K:\projects\104-134\Task 134\DGN\p01-P000_MD223@MikeShapiroDr.dgn